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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|------------------------------|------------------------|
| 10/779,420 | 02/13/2004 | Qiwei He | 3073.NWN | 9065 |
| 7590 Cynthia L. Foulke NATIONAL STARCH AND CHEMICAL COMPANY 10 Findeme Avenue Bridgewater, NJ 08807-0500 | | | EXAMINER MULCAHY, PETER D | |
| | | | ART UNIT 1796 | PAPER NUMBER |
| | | | MAIL DATE 01/10/2008 | DELIVERY MODE PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/779,420

Applicant(s)

HE ET AL.

Examiner

Peter D. Mulcahy

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,6-9,11-14 and 16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-9,11-14 and 16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

1. Claims 1-4, 6-9, 11-14 and 16 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-4, 6-9, 11-14 and 16 and 1-4 and 6-12 of copending Application No. 10/779,492 and 10/779,505. Although the conflicting claims are not identical, they are not patentably distinct from each other because the scope of the set of claims overlaps. Further, the oil and optional wax are conventional auxiliaries used in adhesive applications. As such, use or omission of these ingredients is obvious to one of ordinary skill in the art.
2. Applicants pose the question- are the claims simply an obvious variation of one another? If the answer is no than an obviousness-type double patenting rejection is not

proper. The examiner maintains that this is not the standard by which these rejections are evaluated. In the instant case, there is significant overlap in scope between the claims. The claims herein having the butadiene overlap in scope with those of the '492 given that the butadiene is not excluded. The amount of block polymer of less than 15 wt% overlaps in scope with and is obvious from 15 wt% claimed in '505.

3. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-4, 6-9, 11-14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Komatsuzaki et al. US 6,534,593 or Vaughan et al. US 6,531,544 or Kupperts US 5,939,483 or Diehl et al. US 5,292,819 or Asahara et al. US 5,532,319.

5. Each of the cited patents teaches hot melt adhesive compositions, and bonding substrates using block polymer compositions. The claimed radial polymer is shown in Komatsuzaki et al. as component (b), Vaughan et al. at column 4, lines 19+, Kupperts at column 5, lines 30+, Diehl et al. examples 1-4 and column 5, lines 31+ and Asahara et al. columns 3-5. These patents further suggest the incorporation of the claimed linear, or diblock, polymers see Komatsuzaki et al. as component (a), Vaughan

et al. at column 4, lines 7+ and Kuppers at column 5, lines 30+. The tackifying resin and plasticizer components are shown in Komatsuzaki et al. at column 10 line 39 to column 11 line 29, Vaughan et al. at column 4, lines 36 to column 5 line 55 and Kuppers at column 4, lines 65+ and column 6 lines 20+. These patents lack an anticipatory teaching of the claimed invention. The patents do, however, provide one of ordinary skill in the art clear direction to formulate adhesive compositions within the scope of the claims. Each of the claimed ingredients is shown and suggested to be used in combination in the claimed amounts. As such one would have found the invention prima facie obvious at the time of invention.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 1-4, 6-9, 11-14 and 16 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for compositions having low amounts of radial block polymers, does not reasonably provide enablement for compositions having no radial block polymers. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims. The amount limitation relative to the radial block copolymer is less than 15 wt %. This has no lower limit and as such, there need not be any of this present in the composition. The specification does not

support a composition not having this polymer. As such, the claims are broader than the enabling disclosure.

Response to Arguments

6. Applicants argue that the Komatsuzaki et al. desires 5-34 % styrene content in the block polymer. This is not persuasive. The art is not specifically limited to 24 wt % but rather prefers lower amounts for the lower modulus. The language in the patent "no particular limitation is placed on the proportion of the poly(aromatic vinyl) block..." see column 3 lines 36+. Given the flexible language, there is seen to be an overlap in the claims and the art. The claimed % styrene is obvious as well. One of ordinary skill has an understanding of the resultant properties when using higher amounts styrene. Further, the manipulation of the tack, modulus and pressure sensitive properties is understood by one of ordinary skill in the art. Obviousness does not require absolute predictability but rather a reasonable expectation of success.

7. With respect to the Vaughan et al. patent, applicants argue that the block polymer content is 15-45 wt % as compared to less than "15 wt %." The 15 wt % identified in the art anticipates and/or renders obvious the claim limitation. Further, the amounts in the art are for the total block polymer content. The examiner has cited "the second block copolymer" as reading on the radial block polymer claimed. The amounts of the second polymer would be less than the 15 wt % as claimed. The claims are open to greater amounts of block copolymers given the combination of the radial and the linear.

8. Applicants cite the fact that Kueppers is directed to packaging adhesives. Applicants point out that the viscosity identified in the art is higher than that shown in the specification. This is not persuasive. The claims are not limited by the specification. Further, the compositional ingredients and relative amounts thereof are shown in the art. This renders the claims obvious. One of ordinary skill understands the manipulation of viscosity and is directed to formulate compositions falling within the scope of the claims, irrespective of the viscosity. There is no viscosity limitation claimed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter D. Mulcahy whose telephone number is 571-272-1107. The examiner can normally be reached on Mon.-Fri. 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on 571-272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Peter D. Mulcahy/
Peter D. Mulcahy
Primary Examiner
Art Unit 1713

12/27/07